February 2022

Climate, Peace and Security Fact Sheet

Afghanistan

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Afghanistan is highly vulnerable to the effects of climate change: rising temperatures, changing precipitation patterns and increasingly frequent extreme weather events. Currently, Afghanistan is experiencing its worst drought in 27 years, which, compounded with COVID-19 and the economic contraction that followed the takeover of the government by the Taliban in August 2021, has significantly increased livelihood and food insecurity and contributed to a growing humanitarian emergency.

- Climate change exacerbates the deteriorating conditions for agriculture-based livelihoods and food insecurity.
- Conflict and the effects of climate change have increased internal displacement and changed migration patterns. High levels of displacement accentuate food and livelihood insecurity and increase the vulnerability of marginalised groups, including women.
- The effects of climate change may heighten the risk of more frequent and intense local conflicts over land and water and increase tensions over transboundary resources.
- Conflict has eroded the resilience of communities and local authorities to adapt to climate change and to deal with the current humanitarian crisis. This creates opportunities for elites to manipulate and profit from land and water disputes, with elevated risks for marginalised groups.

Through the Special Trust Fund and the Area-based Approach for Development Emergency Initiatives (ABADEI) strategy, United Nations (UN) specialised agencies and partners should work coherently with local communities to manage climate-related security risks linked to livelihood deterioration, including by improving irrigation infrastructure and sustainable natural resource management practices. These measures should be aimed at promoting social cohesion.

RECOMMENDED ACTIONS:

- The UN and international community should collectively work to ensure that the humanitarian assistance and related programming within the purview of the Special Trust Fund managed by the UN Development Programme (UNDP) is climate sensitive. To avoid fragmentation, the UN should facilitate collective planning, prioritisation and coordination to improve individual and community resilience to different shocks and bolster natural disaster preparedness and risk mitigation at community level.
- The United Nations Assistance Mission in Afghanistan (UNAMA) could improve mandate implementation by more systematically incorporating climate-related peace and security risks in its analyses and the work of its Governance and Community Affairs Service, including its support to local conflict management, promotion of gender equality, child protection, and inclusive and participatory governance. UNAMA should develop the capacity of relevant staff, especially in its field offices, to identify, analyse and mitigate climate-related security risks, and incorporate the analytical and planning tools being developed for this purpose by the UN Climate Security Mechanism.
- Under its mandate to support regional cooperation, UNAMA should, in cooperation with the UN Regional Centre for Preventative Diplomacy for Central Asia (UNRCCA), encourage transboundary cooperation of shared water catchment areas. Efforts should factor in future pressures on water resources resulting from climate change, which could increase the risk of tensions and violence in some border regions.

ND-GAIN Climate Vulnerability and Adaptation Readiness Indexes

Afghanistan

Mid-term projected temperature increase: 1.4°C – 4.0°C (2060)

Warmer winter months, increased evapotransipiration and decreased groundwater

Decreasing rainfall, increased risk of water stress

60 per cent of households supported by agriculture (2021)

Internally Displaced Persons: 5,333,654 (2021)

Human Development Index: 0.49 / 1.0 (2019)

Population: 38,041,754 (2019)

Acutely food insecure population: 18.8 million (2021)

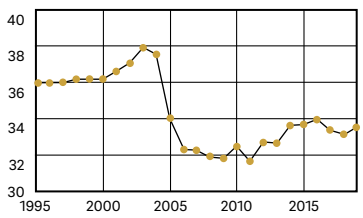
Global Peace Index score 3.3 / 5 (2021)

33.5 ND-GAIN Country Index score 33.5 / 100 (2019)

ND-GAIN Country Index

The ND-GAIN Country Index captures a country's Vulnerability to climate change and other global challenges, and its Readiness to improve resilience.

ND-GAIN Country Index score over time



Country comparison	ND-GAIN Country	Global Peace Index score
Sudan	32.7/100	3.0/5
Niger	33.1/100	2.2/5
Somalia	33.9/100	3.3/5
Liberia	33.8/100	2.0/5
Yemen	34.7/100	2.5/5

Figure 1. Sources: World Bank Climate Change Knowledge Portal (n.d.) Afghanistan. Climate data: projections; World Bank (2021) Afghanistan. Overview; World Bank (2021) Population, total – Afghanistan; IOM DTM (2020) Baseline Mobility Assessment: Summary Results Round 13, Jun 30 2021; UNDP (2019) Human Development Report 2019; Integrated Food Security Phase Classification (IPC). (2021). IPC Acute Food Insecurity Analysis: September 2021-March 2022.

Climate Exposure: Trends and Projections

Afghanistan is a landlocked country with a varied geography. Some 63 per cent of the country is mountainous, with the glacial Hindu Kush in the north and deserts in the south-west.[1] Extreme weather events like droughts and flooding are common, but patterns differ across ecological zones.[2] Climate change is anticipated to increase the frequency and intensity of extreme weather events.

Temperature: In Afghanistan, the mean annual temperature for the period 1901–2016 was 12.9°C.[3] Across the country, mean annual temperatures rose by 1.8°C between 1951 and 2010, with the greatest increase in the east (2.4°C). While the Hindu Kush region experienced the lowest increase (0.6°C), mountain glaciers decreased in volume by 18.5 per cent from 1990 to 2015.[4] Glacial retreat is expected to continue, also increasing the risk of flooding.Temperatures are predicted to rise between 1.7°C and 2.3°C by 2050.[5]

Precipitation: While within the range of natural variability, Afghanistan experienced a slight reduction (<10 per cent) in mean annual rainfall from 1951-2010 in the west, and less spring rainfall accross all regions.[6] The frequency of droughts increased in southern and western Afghanistan between 1901 and 2010.[7] Precipitation projections are uncertain. Some forecast relatively stable rainfall through 2100, but rising temperatures will increase evapotranspiration, leading to water stress and diminished groundwater resources.[8]

Water Stress

Afghanistan, 2020

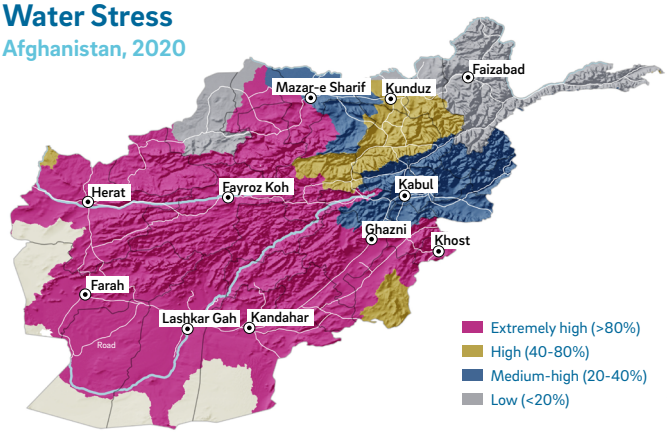


Figure 2. Data sources: WRI & Natural Earth.

Socio-ecological Vulnerabilities

Agricultural livelihoods are vulnerable to changes in rainfall and water availability but are also affected by land degradation and deforestation. Deforestation, drought and poor land management have halved forest cover to just 1.5–2 per cent of national land cover.[9] Overgrazing and intensified wheat production have contributed to degrading livestock rangelands.[10] Environmental degradation caused by human activity and climate change further exacerbates the risk of flooding, including in the Kabul River region, and landslides.[11]

Agriculture supports ca. 60–80 per cent of Afghan livelihoods: primarily smallholder farmers who generally irrigate using surface water fed by snowmelt.[12] In south-western Afghanistan, farmers increasingly rely on underground water reserves accessed by solar pumps.[13] Both men and women engage in agriculture, although tasks and responsibilities are differentiated by gender, income level and region. Women's participation in the labour force was at 28.9 per cent in 2014, with two-thirds working in agriculture.[14] Many women in the agricultural sector are unpaid and, though they may own livestock, they are less likely to own land. This makes female-headed households less resilient to the effects of climate change and less able to recover after disasters.[15] Individual adaptive capacities are also limited by conflict and high poverty rates.[16] By mid 2022, poverty is estimated to impact up to 97 per cent of the population.[17]

Political developments have exacerbated longstanding food insecurity and hunger across the country.[18] The financial sanctions implemented by the international community after the Taliban's takeaover of the government have severely affected the economy, preventing people from accessing savings and credit. In addition, vast areas of the country have experienced a severe drought that has been ongoing since February 2021, negatively impacting rainfed agriculture and pastures across Afghanistan, affecting farmers in conflict-hit dry zones and driving down livestock prices in some areas.[19] Hunger is predicted to increase, and up to 23 million out of the ca. 38 million people in Afghanistan are expected to face crisis or emergency levels of food insecurity during the winter of 2022, affecting both rural and urban areas, and particularly internally displaced persons (IDPs).[20]

Climate-related Peace and Security Risks

Climate change and its social outcomes can impact peace and security. Although there is no direct causal relationship between climate and conflict, research has identified multiple pathways through which climate change interacts with political, social and environmental stresses to compound existing vulnerabilities and tensions.[21] This can undermine development gains, as well as affect the dynamics of ongoing violence and disrupt fragile peace processes. In turn, violent conflict and political instability undermine community resilience to the effects of climate change.[22]

This Fact Sheet uses four pathways to navigate the complex relationship between climate change, peace and security: (1) livelihood deterioration, (2) migration and mobility, (3) military and armed actors, and (4) political and economic exploitation.[23]

Livelihood Deterioration

The effects of climate change, environmental degradation and conflict have negatively impacted natural resource-dependent livelihoods in Afghanistan. Conflict has deteriorated water and agricultural

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12 Akhundzadah, N et al., 2020; Jadin, J. (2018). 15 Years in Afghanistan a Special Report: 2003–2018. FAO; Pervez et al., 2014; Qutbudin et al., 2019.

13 Mansfield, D. (2018) Still Water Runs Deep: Illicit Poppy and the Transformation of the Deserts of Southwest Afghanistan. Afghanistan Research and Evaluation Unit (AREU).

14 Ganesh, L. (2017). Women in Agriculture in Afghanistan. AREU.

15 Ganesh, 2017; World Bank Group (2005). Afghanistan: National Reconstruction and Poverty Reduction — the Role of Women in Afghanistan's Future; Committee on the Elimination of Discrimination against Women (2018). General Recommendation No. 37 on Gender-related Dimensions of Disaster Risk Reduction in the Context of Climate Change.

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17 UNDP Afghanistan Country Office (2021). Economic Instability and Uncertainty in Afghanistan after August 15 A Rapid Appraisal.

18 Lyons, D. (2021). Briefing to the United Nations Security Council.

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20 Integrated Food Security Phase Classification (IPC). (2021). IPC Acute Food Insecurity Analysis: September 2021-March 2022.

21 Van Baalen, S. & Mobjörk, M. (2017). Climate Change and Violent Conflict in East Africa: Integrating Qualitative and Quantitative Research to Probe the Mechanisms. International Studies Review 20(4), pp. 547–575.

22 Moran, A. et al. (2018) The Intersection of Global Fragility and Climate Risks; de Coning, C. & Krampe, F. (2020) Multilateral cooperation in the area of climate-related security and development risks in Africa (NUPI Report 4/2020).

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infrastructure, rendering agriculture and pastoral livelihoods more vulnerable to climate change and disasters. Population growth and environmental degradation exacerbate competition over resources. Noting that the Afghan population is among the youngest in the world, these factors have increased food insecurity and, in some cases, contributed to child marriage, child labour and opium poppy cultivation.[24]

Conflict, poor management, over-exploitation and the effects of climate change – soil erosion in particular – have degraded more than 80 per cent of the land in Afghanistan.[25] Projected temperature increase, evapotranspiration and shrinking rivers are expected to impact arable land further.[26] Conflict and climate change have also affected Afghanistan's water resources: since 1979, irrigated land has shrunk from ca. 2.5 to 1.5 million hectares; while conflict has simultaneously restricted development and construction of water-related infrastructure.[27] The combined impacts of climate change and conflict severely affect livelihood and food security.

Women and girls experience heightened risks due to the compound effects of climate change and insecurity. Women engaged in unpaid labour are significantly dependent on family income.[28] The collection of water and fuelwood generally falls to women, so changing accessibility can put them at greater risk of violence when they must go further afield.[29] During periods of drought and severe food insecurity, rates of child marriage rise, driven by the need to offset increased debt and the loss of agricultural assets.[30]

The adverse effects of climate change and conflict on agricultural livelihoods and irrigation infrastructure have contributed to increased opium poppy cultivation, which was also a source of revenue for the Taliban. Under projected scenarios of water stress, and in the absence of livelihood alternatives, there is a greater risk that farmers will use poppy cultivation to ensure livelihood security.[31] Poppies require less water and are roughly three times more profitable per hectare than primary crops like wheat.[32] A lack of economic options and available natural resources incentivise farmers to engage in poppy production, and both men and women play a role in its cultivation.[33] Women involved in the opium economy are put at risk through their role in smuggling, and the time and intensity of poppy cultivation adds to women's domestic work. However, income from poppy cultivation can be reinvested into alternative and legal livelihoods and also increase women's status in the community.[34]

UN specialised agencies and partners should work with local communities to strengthen resilience to environmental degradation, climate change and related extreme weather – for example, by identifying alternatives to poppy cultivation, as well as through capacity-building and microloans for farmers. Programmes should incorporate the needs of women, girls and female-headed households.

Migration and Mobility

Conflict, climate change and environmental disasters can lead to population displacement, but longer-term changes in temperature and rainfall can also affect cyclical migration patterns. Both types of migration can have indirect, knock-on effects on host communities in other parts of the country.

IDPs are very vulnerable to extreme weather but can also put strain on land and water resources in receiving areas such as Kabul, increasing the risk of resource disputes, and sometimes conflict, with host populations.[35] Since 2002, refugees returning from outside Afghanistan have also experienced tensions with local communities over access to arable land.[36] Drought is a significant driver of internal displacement in Afghanistan. In 2018, ca. 300 000 people were displaced by droughts, surpassing conflict-related displacement, including in Herat, Badghis and Ghor provinces.[37] Flash floods are another significant driver of displacement.[38]

Violent Events & Internally Displaced Persons (IDPs) Afghanistan

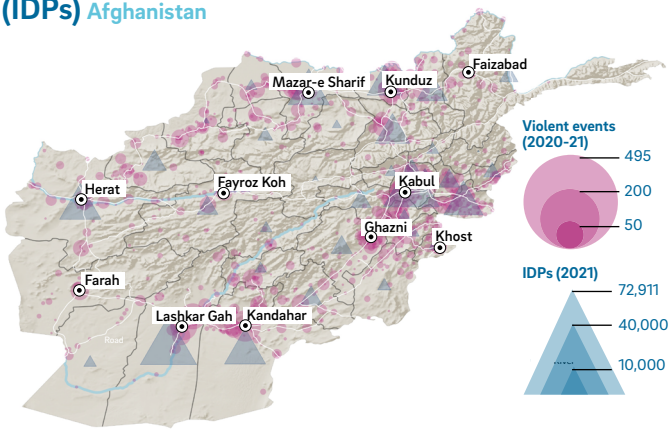

Figure 3. Includes armed clashes, violence against civilians, riots, explosions/remote violence. Data sources: ACLED, FEWSNET & Natural Earth.

Demographic pressures and changing land availability also heighten the risk of conflict between pastoralists and farmers, including in western Farah, central Kabul and northern Kunduz provinces.[39] The effects of climate change, particularly rising temperatures and declining rainfall, exacerbate the risks of climate-related displacement and resulting tensions over shrinking resources.

Afghan men and women have different migration opportunities depending on gender norms: men can engage in labour migration, but women generally remain in their villages; although women who engage in livestock husbandry may migrate seasonally with a male relative.[40] When climate change and conflict force migration or displacement, individuals and communities experience significant risks. Families face separation and poverty, children can be forced to leave school and female-headed households can be particularly vulnerable. If men migrate to find employment in the wake of a disaster, women remaining at the head of their household may face increasing poverty, and discrimination or abuse, when working to provide for their families.[41]

The UN system and its international partners should work with local communities and invest in disaster management and preparedness, including early warning systems for increasingly frequent droughts and floods as existing monitoring systems have been destroyed through decades of conflict.[42] The UN should work with community organisations to establish these mechanisms to include the specific risks faced by women and children, pastoralist communities and IDPs.

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Military and Armed Actors

The effects of climate change and environmental degradation in Afghanistan undermine livelihood security and fuel local disputes over water and land, creating new opportunities for armed actors to advance their strategic aims.

The projected effects of climate change on precipitation and arable land in Afghanistan may heighten the risk of conflict over natural resources, in some cases benefitting armed actors. One factor in local land disputes is the complicated system of customary and formal land ownership rules. Another is the role that armed actors increasingly play in land-grabbing and local dispute resolution mechanisms. Weak rule of law has encouraged abuse of the systems and, with courts being less effective at resolving disputes, the involvement of armed actors in conflict resolution undermines traditional local leadership and increases the risk that local resource disputes intensify and intersect with national conflict.[43] The UN has recognised competition over land and water as an important cause of local conflict in Afghanistan and the need for an 'equitable land tenure system to ensure long term peace and stability'.[44]

Given the relevance of resource disputes to conflict and peacebuilding in Afghanistan, and the conflict risks of future stress on transboundary water resources, UNAMA should incorporate climate peace and security risks in its analyses and operations. Following the Taliban's takeover of the government, mapping the existing capacities of relevant institutions would be an important first step. UN agencies, including UNDP, should address resource disputes and climate, peace and security risks in measures aimed at promoting social cohesion.

Political and Economic Exploitation

Decades of war have eroded customary and formal resource management institutions in Afghanistan, creating opportunities for elite actors to manipulate and profit from land and water disputes. The involvement of elite actors in exploiting local resource conflicts can increase grievances and undermine local governance mechanisms.[45] As the effects of climate change on temperatures and rainfall diminish productive land and water resources, and reduce the livelihood security of agriculturalists and pastoralists, resource disputes may become more frequent and more violent.

In Afghanistan, land and water disputes have been exacerbated by the limited capacity of the justice system and the confusion surrounding customary and formal land tenure laws, allowing powerful elites to take advantage of legal ambiguities and corrupt institutions.[46] Water disputes can be a source of local conflict and exploitation. Local water allocation is traditionally managed by mirabs: community members

Livelihood Zones & Civilian Fatalities

Afghanistan 2017-2021

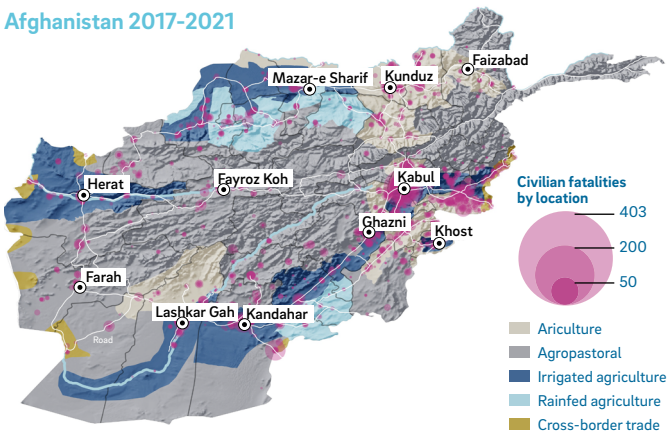

Figure 4. Data sources: ACLED, FEWSNET & Natural Earth.

elected to manage irrigation systems and water distribution. However, in some contexts mirabs have also been noted to exploit their control over community water access and use rent-seeking behaviour.[47]

All five major river basins in Afghanistan discharge their water into neighbouring states, and regionally the effects of climate change on water resources can also increase the risk of transboundary tensions. The construction of the Salma Dam, on the Harirud River in Herat province, has strained relations between Afghanistan, Iran and Turkmenistan; and Iran has protested against Afghanistan's reconstruction of the Kajakai Dam over the Helmand River.[48] Afghanistan has only a few weak bilateral water agreements, which increases the risk of conflict over real or perceived water stress.[49] The Iran–Afghanistan dialogue on the Helmand River and other frameworks, like the Regional Economic Cooperation Conference on Afghanistan (RECCA), offer potential opportunities for developing better transboundary cooperation.[50] The construction of the Shahtoot Dam to meet drinking water needs in Kabul is planned in cooperation with India, but tensions over the dam have ensued with Pakistan, with whom there is no bilateral water treaty.[51]

The effects of climate change and environmental degradation may heighten the risk of more frequent local disputes over land and water. The UN system should work with international partners and local communities to map and assess the capacity of local resource dispute resolution mechanisms and to develop legal frameworks as well as community-based mechanisms for land and water use and ownership.

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The Climate-related Peace and Security Risks project aims to generate reliable, relevant, timely and actionable information and analysis on climate-related peace and security risks for selected countries and regions on the UN Security Council agenda.

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